

# PERTRONIC INDUSTRIES LTD

## DATASHEET

### Pertronic-Anbesec Linear Heat Detection Cable

LHDCATIC-68C-200, LHDCATIC-88C-200, LHDSIC-68C-200, LHDSIC-88C-200

LHDCATIC-68C-400, LHDCATIC-88C-400, LHDSIC-68C-500, LHDSIC-88C-500



#### Overview

Pertronic-Anbesec linear heat detection (LHD) cable is a heat sensing device with a fixed temperature alarm threshold.

The cable consists of two twisted steel wires separated by heat sensitive insulation. The insulation melts at a pre-determined temperature, allowing the wires to contact each other and create a short circuit. When correctly connected to a Pertronic fire panel, the LHD cable triggers an alarm signal when the insulation melts.

Pertronic-Anbesec LHD cable may be connected to all current Pertronic fire panels including

- F1
- F4 (see note 1 page 2)
- F16e
- F100A (see note 2 page 2)
- F220 (see note 2 page 2)

LHD cable sensitivity is not affected by installation temperature or the length of cable heated by a fire.



*Pertronic-Anbesec  
Linear Heat Detection Cable  
on 200 Metre Drum*

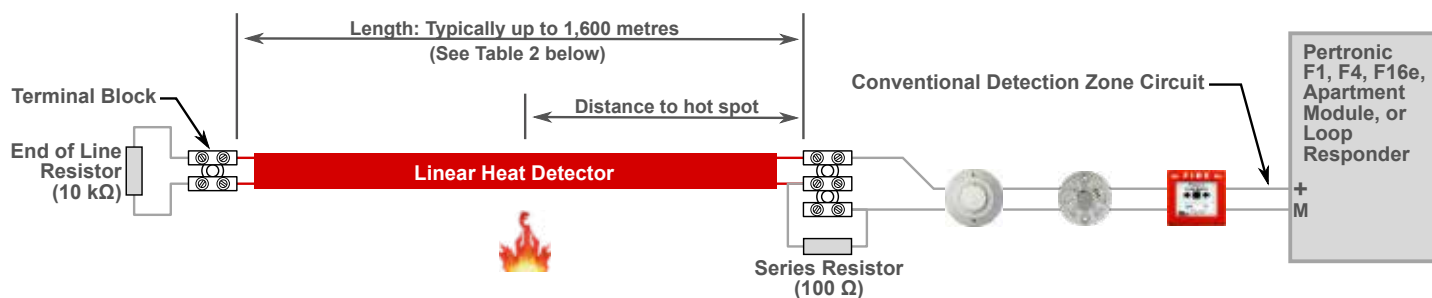
#### Features

- » Available with integral catenary wire
- » Compatible with Pertronic conventional and analogue addressable fire panels
- » Typically 1,600 metres of cable may be connected to a Pertronic conventional detection zone (see Table 2 on page 2)
- » No adjustments required
- » Supplied on 200 metre drums
- » Standard (non-catenary) LHD cable also available on 500 metre drums
- » Pertronic-Anbesec LHD cable is UL listed under "UL 521 Heat Detectors for Fire Protective Signaling Systems" (referenced in NZS 4512:2010 section 216.1)
- » FPANZ listed

**Table 1: LHD Cable Specification**

Manufacturer's Code	Standard Catenary	NMS1001-68C NMS1001-68C-G	NMS1001-88C NMS1001-88C-G
Outer Jacket Colour		Blue	Red
Alarm Temperature		68 °C	88 °C
Maximum Working Temperature		45 °C	60 °C
Conductor Diameter		0.92 mm	
Conductor Resistance		640 ± 60 Ω/km ("Round-trip" with conductors connected in series) (320 ± 30 Ω/km per conductor)	
Minimum Bend Radius		150 mm	
Insulation Resistance (between cores)		1000 MΩ, 500 V	
Insulation Resistance (cores to outer)		1000 MΩ, 2 kV	
Capacitance (25 °C)		65 pF/m	
Inductance (25 °C)		7.6 μH/m	
Minimum Working Temperature		-40 °C	
Storage Temperature		Up to 45 °C	
Relative Humidity		≤ 98 % non-condensing	
Environmental Protection	Cable	IP 66	
	System	Depends on termination	

## Typical Connections: Pertronic-Anbesec LHD in a Pertronic Fire Alarm System



### Notes:

- 1: Pertronic-Anbesec LHD cable is not compatible with Pertronic 2-wire fire panels (F4FS-3 2W and F4RS-3 2W)
- 2: When connecting to an F100A or F220 fire panel, use a Pertronic Apartment Module (AM-3, AMH-3) or Pertronic Loop Responder (AALR-MF)
- 3: The feeder cable between fire panel (or module) and LHD is limited to a maximum of 10 Ω (e.g. 270 m of 1 mm<sup>2</sup>).
- 4: If the LHD cable is activated by a hot spot more than 100 metres along the cable, the detection zone may trigger a smoke alarm signal. See table 2 (below).
- 5: All outputs triggered by the LHD cable should be configured as for heat mode operation.
- 6: The LHD cable must be installed at the end of the detection circuit, as shown above.

**Table 2: Specification: LHD System**

Pertronic Conventional Circuit NZS 4512: 2010	Distance to hot spot (metres, ± 10%)		Maximum Length
	Heat Alarm	Smoke Alarm	
F1 : FW >v2.3	0 – 100 m	over 100 m	1600 m
F4 : FW >v2.26			
F16e : all versions	0 – 180 m	over 180 m	1600 m
Loop Responder : FW >v3.00			
Apartment Module : all versions	0 – 300 m	over 300 m	2800 m

### Ordering Information

Product Code			Description	FPANZ Listing
200 Metre Drum	400 Metre Drum	500 Metre Drum		
LHDSIC-68C-200	not available	LHDSIC-68C-500	Linear Heat Detection Standard Indoor PVC Sheath Cable, NMS1001-68C	PI/264
LHDSIC-88C-200	not available	LHDSIC-88C-500	Linear Heat Detection Standard Indoor PVC Sheath Cable, NMS1001-88C	PI/265
LHDCATIC-68C-200	LHDCATIC-68C-400	not available	Linear Heat Detection Catenary Indoor PVC Sheath Cable, NMS1001-68C-G	PI/262
LHDCATIC-88C-200	LHDCATIC-88C-400	not available	Linear Heat Detection Catenary Indoor PVC Sheath Cable, NMS1001-88C-G	PI/263

NOTE: This information applies to NZS 4512 versions of Pertronic fire panels and modules. For information about connecting LHD cable to our export products, please visit our Australian website at <https://pertronic.com.au> or contact your nearest Pertronic office.

This information must not be treated as partial or complete instructions for the design, construction, installation, commissioning, or maintenance of fire detection, fire alarm, or building evacuation systems. Fire and evacuation systems must be designed and installed by properly qualified persons, in accordance with all regulatory requirements.

Unless explicitly stated otherwise, typical specifications and nominal dimensions are provided. Actual product performance and dimensions may vary.

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